BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

THE APPLICATION OF BULLOCK PEN WATER)
DISTRICT, OF GRANT, BOONE, PENDLETON,)
AND GALLATIN COUNTIES, KENTUCKY, FOR)
APPROVAL OF CONSTRUCTION, FINANCING,)
AND INCREASED WATER RATES)

ORDER

shall file an original and seven copies of the following information with the Commission with a copy to all parties of record no later than February 13, 1987. If the information cannot be provided by this date, Bullock Pen should submit a motion for an extension of time stating the reason a delay is necessary and include a date by which it will be furnished. Such motion will be considered by the Commission. Bullock Pen shall furnish with each response the name of the witness who will be available at the public hearing for responding to questions concerning each item of information requested.

1. The computer hydraulic analyses filed in this case for both the existing and proposed water distribution system indicates that the potential exists for the system to experience low pressure (less than 30 psig) at Nodes 7, 10 and 11. Pressures of this magnitude are in violation of PSC regulation 807 KAR 5:066, Section 6 (1). Provide details of any preventive measures or

additional construction Bullock Pen intends to perform to protect against this type of occurrence. Details should be documented by hydraulic analyses and field measurements.

- 2. The computer hydraulic analyses filed in this case for both the existing and proposed water distribution system depict the Crittenden pump station "operating out of range." This would indicate that this pump is unable to satisfy the system's hydraulic conditions as input. Operation at or near the right end of a pump's characteristics curve is generally inefficient and may lead to "cavitation" or other operating problems. State whether this type operation presently occurs, if this type operation is expected to occur after construction, and if it is expected, state what preventive measures or additional construction Bullock Ben intends to perform to protect against this type of occurrence.
- 3. In response to the Commission's November 24, 1986, Information Request, a flow test of the Crittenden pump station was mentioned. Bullock Pen's response stated that the test was not considered conclusive and that it was felt that the pump actually operates above the pump curve developed from the test. State whether any additional testing was done to further clarify this matter. If no additional testing was done, state why not. If additional testing was done provide the results.
- 4. In response to the Commission's November 24, 1986, Information Request, the inability to consistently refill the Verona water storage tank was mentioned. A pressure recording chart which monitored pressure at the base of the Verona water storage tank was also filed. This chart indicates pressure above

what would be expected if this tank was full. This would indicate that the pressure recording device was in error, the elevation of the monitoring location is not correct or the tank was full and isolated from the system (i.e. by an altitude valve) and the high service pump was in operation. Provide clarification concerning this matter. This should include under what conditions the pressure recording was made (i.e., tank on line, tank isolated, high service pump on, high service pump off, etc.)

- In response to the Commission's November 24, 1986, 5. Information Request, information concerning the renovation and expansion of Bullock Pen's water treatment plant was filed. However, information concerning Bullock Pen's peak day usage, Bullock Pen's projected annual peak day demands, how the demands were forecasted and when 1 million gallons per day (GPD) would be needed was not filed, as requested. In addition. information concerning the documented problems with water quality which occur when more than 300,000 GPD are produced was not filed Provide this information. The information which as requested. was filed stated that "It is desirable to operate the treatment plant for 8 hours per day." Provide the design and cost information which supports the conclusion that operation of the water treatment plant for 8 hours a day is cost-effective.
- 6. How many gallons of water were sold to the City of Dry Ridge during the test year?
 - 7. Why is no increase proposed for the City of Dry Ridge?

- 8. Please provide cost justification for the proposed increase in each connection charge. Cost justification forms are attached to this information request for your convenience.
- 9. Please provide cost justification, using the attached forms, for the following proposed increases:

5/8 x 3/4-inch installation fee \$ 65

1, 1 1/2, 2-inch installation fee 100

Reconnection 40

Done at Frankfort, Kentucky, this 28th day of January, 1987.

PUBLIC SERVICE COMMISSION

For the Commission

ATTEST:

Typ	e of	Special Charge:	-
1.	Fie	eld Expense	
	A.	Materials (Itemize)	
			\$
	в.	Labor (Time and Wage)	
		Subtotal Field Expense	
2.	Cler	ical and Office Expense	
	A.	Supplies	\$
	B.	Labor	
		Subtotal Clerical and Office Expense	
3.	Mis	cellaneous Expense	
	A.	Transportation	\$
	B.	Other (Itemize)	
			
		Subtotal Miscellaneous Expense	
		Total Expense	

Typ	e of	Special Charge:	·
		eld Expense Materials (Itemize)	
			\$
	В.	Labor (Time and Wage)	
		Subtotal Field Expense	
2.	Cler	ical and Office Expense	
	A.	Supplies	\$
	B.	Labor	·
		Subtotal Clerical and Office Expense	
3.	Mis	cellaneous Expense	
	A.	Transportation	\$
	В.	Other (Itemize)	
•		Subtotal Miscellaneous Expense	
		Total Expense	

Typ	e of	Special Charge:	·
1.	Fie	eld Expense	
	· A.	Materials (Itemize)	
			\$
	в.	Labor (Time and Wage)	
		Subtotal Field Expense	
2.	Cler	ical and Office Expense	
	A.	Supplies	\$
	B.	Labor	·
		Subtotal Clerical and Office Expense	
3.	Mis	cellaneous Expense	•
	A.	Transportation	\$
	B.	Other (Itemize)	
			
		Subtotal Miscellaneous Expense	
		Total Expense	

Typ	e of	Special Charge:	-
1.	Fie	eld Expense	
	A.	Materials (Itemize)	
			\$
			
	В.	Labor (Time and Wage)	
		Subtotal Field Expense	
2.	Cler	ical and Office Expense	
	A.	Supplies	\$
	B.	Labor	
		Subtotal Clerical and Office Expense	
3.	Mis	cellaneous Expense	
	A.	Transportation	\$
	В.	Other (Itemize)	
		•	
		Subtotal Miscellaneous Expense	
		Total Expense	

Ty	pe of	Special Charge:	· -
1.	Fie	eld Expense	
	· A.	Materials (Itemize)	
			\$
	В.	Labor (Time and Wage)	
		Subtotal Field Expense	
2.	Cler	ical and Office Expense	
	A.	Supplies	\$
	В.	Labor	
		Subtotal Clerical and Office Expense	
3.	Mis	cellaneous Expense	•
	A.	Transportation	\$
	B.	Other (Itemize)	
			
			
		Subtotal Miscellaneous Expense	
		Total Expense	

PUBLIC SERVICE COMMISSION

P.O. BOX 615

FRANKFORT, KENTUCKY 40602

Nam	e of	Utility:	Addre	\$\$ <u>:</u>		
						
The	fol	lowing is an itemization	of expense	es for pro	oviding a me	tered
ser	vice	connection.			·	
Α.		er Size -Inch / 3/4-Inch /	1-Inch /_		2-Inch	2-Inch /
Oth	er (specify)				
В.	Mat	erials Expense				
			Quanity	Unit Cost	Total Cost	
	1.	Water Meter		<u>\$</u>	<u>\$</u>	
	2.	Meter Yoke				
	3.	Corporation Stop				
	4.	Meter Box and Top				
	5.	Miscellaneous Fittings				
		(Itemize)				
	6.	Subtotal (Add column 3)				/s

		-	2 -			
c.	Ser	vice Pipe Expense				
	Тур	e of Service Pipe:		Size of S	ervice Pip	e
			Quanity	Unit Cost	Total Cost	
	1.	Short Side Service		F. <u>S</u> U.	F	•
	2.	Long Side Service	L	FL.	F	-
	3.	Subtotal (Add column 3 and divide by 2)				<u>/s</u>
D.	Ins	tallation Expense				
	Lab	or				
			Total Hours	Rate Per Hour	Total Cost	
	1.	Short Side Service		<u>s</u>	<u>\$</u>	•
	2.	Long Side Service		-		-
	3.	Subtotal (Add column 3 and divide by 2)				/s
	Equ	ipment				
			Total Hours	Rate Per Hour	Total Cost	
	1.	Short Side Service		<u>s</u>	<u>s</u>	
	2.	Long Side Service				
	3.	Subtotal (Add column 3 and divide by 2)				<u>/s</u>
	Mis	cellaneous				
			Total	Rate Per Hour	Total Cost	
	1.	Inspection				-
	2.	Site Clean-Up				_
	3.	Other (Itemize)			•	_ ,
	4.	Subtotal (Add column 3)				<u>/s</u>

•

E.	Overhead Expense					
	1.	Installation expense (\$) x	, 			
		overhead rate (5)	<u>/\$</u>			
F.	Adm	inistrative Expense				
	1.	Office expense for establishing a new account	,			
		and billing record.	<u>/s</u> /			
G.	Exp	ense Summary	/ 			
	3	Total of items B-F	/\$			

PUBLIC SERVICE COMMISSION

P.O. BOX 615

FRANKFORT, KENTUCKY 40602

Name	of	Utility:	Addre	?S:		
The	fo1'	lowing is an itemization (of evpens			toned
			or expense	ss for pro	oviding a me	tered
ser	rice	connection.				
Α.	Mete	er Size				
	5/8	-Inch / 3/4-Inch /	1-Inch	1 1/2	2-Inch/	2-Inch /
Othe	er (:	specify)				
В.	Mate	erials Expense			•	
			0	Unit Cost	Total Cost	
	1	Water Meter	Quanity	S	\$	
				<u> </u>		
		Meter Yoke				
	3.	Corporation Stop				
	4.	Meter Box and Top				
	5.	Miscellaneous Fittings				
		(Itemize)				
	6.	Subtotal (Add column 3)				/s /

c.	Ser	vice Pipe Expense				
	Тур	e of Service Pipe:		Size of Se	rvice Pip	e
			Quanity	Unit Cost	Total Cost	
	1.	Short Side Service		F. S U. F	·	
	2.	Long Side Service		FL , F	·	
	3.	Subtotal (Add column 3 and divide by 2)				<u>/s</u>
D.	Ins	tallation Expense				
	Lab	or				
			Total Hours	Rate Per Hour	Total Cost	
	1.	Short Side Service		<u>s</u>	\$	•
	2.	Long Side Service				-
	3.	Subtotal (Add column 3 and divide by 2)				<u>/s</u>
	Equ	ipment	Total Hours	Rate Per Hour	Total Cost	
	1.	Short Side Service		<u>\$</u>	<u>s</u>	
	2.	Long Side Service		- 4		
	3.	Subtotal (Add column 3 and divide by 2)				<u>/s</u>
	Mis	scellaneous				
			Total	Rate Per Hour	Total Cost	
	1.	Inspection				
	2.	Site Clean-Up				
	3.	Other (Itemize)				
	4.	Subtotal (Add column 3)				<u>/s</u>

•

E.	Overhead Expense	
	1. Installation expense (\$) x	,
	overhead rate (5)	<u>/s</u>
F.	Administrative Expense	
	1. Office expense for establishing a new account	,
	and billing record.	<u>/\$</u>
G.	Expense Summary	
	1. Total of items B-F	/s

PUBLIC SERVICE COMMISSION

P.O. BOX 615

FRANKFORT, KENTUCKY 40602

Name	e of	Ttility:	Addre	\$S:		
		lowing is an itemization of connection.	of expense	es for pro	oviding a me	tered
A.		er Size -Inch 3/4-Inch	l-Inch	1 1/3	2-Inch/	2-Inch /
Othe	er (s	specify)				
В.	Mate	erials Expense				
			Quanity	Unit Cost	Total Cost	
	1.	Water Meter		<u>s</u>	\$	
	2.	Meter Yoke				
	3.	Corporation Stop				
	4.	Meter Box and Top				
	5.	Miscellaneous Fittings				
		(Itemize)				
	6.	Subtotal (Add column 3)				/s /

c.	Ser	vice Pipe Expense				
	Type of Service Pipe:		Size of Service Pipe			e
			Quanity	<u>Unit</u> <u>Cost</u>	Total Cost	
	1.	Short Side Service		F. <u>S</u> L.	F	
	2.	Long Side Service		FI	F,	
	3.	Subtotal (Add column 3 and divide by 2)				<u>/s</u>
D.	Ins	tallation Expense				
	Lab	or				
			Total Hours	Rate Per Hour	Total Cost	
	1.	Short Side Service		<u>s</u>	<u>\$</u>	-
	2.	Long Side Service				-
	3.	Subtotal (Add column 3 and divide by 2)				<u>/s</u>
	Equ	ipment	Total Hours	Rate Per Hour	Total Cost	·
	1.	Short Side Service		\$	<u>s</u>	
	2.	Long Side Service				
	3.	Subtotal (Add column 3 and divide by 2)				<u>/s</u> /
	<u> M1</u> s	scellaneous				
			Total	Rate Per Hour	Total Cost	
	1.	Inspection				-
	2.	Site Clean-Up				_
	3.	Other (Itemize)				- ,
	4.	Subtotal (Add column 3)				/s

E.	Ove:	rhead Expense	
	1.	Installation expense (\$) x	,———
		overhead rate (5)	<u>/s</u>
F.	Adm	inistrative Expense	
	1.	Office expense for establishing a new account	,
		and billing record.	<u>/\$</u>
G.	Exp	ense Summary	,
	1.	Total of items B-F	<u>/s</u>

PUBLIC SERVICE COMMISSION

P.O. BOX 615

FRANKFORT, KENTUCKY 40602

Name	of	Utility:	Addre	ss:		
		lowing is an itemization of connection.	of expense	es for pro	viding a me	tered
	Met	er Size -Inch /_/ 3/4-Inch //	1-Inch /_	1 1/2	-Inch/	2-Inch /
Othe	er (:	specify)				
В.	Mat	erials Expense				
			Quanity	Unit Cost	Total Cost	
	1.	Water Meter		<u>s</u>	\$	
	2.	Meter Yoke				
	3.	Corporation Stop				
	4.	Meter Box and Top				
	5.	Miscellaneous Fittings				
		(Itemize)				
	6.	Subtotal (Add column 3)				<u>/</u> \$

C.	Service Pipe Expense				
	Type of Service Pipe:	·	Size of S	ervice Pir	e
		Quanity	<u>Unit</u> <u>Cost</u>	Total Cost	
	1. Short Side Service		F. <u>S</u> L'.	F	
	2. Long Side Service	L	FL.	F,	-
	3. Subtotal (Add column 3 and divide by 2)	3			<u>/s</u>
D.	Installation Expense				
	Labor				
		Total Hours	Rate Per Hour	Total Cost	
	1. Short Side Service		\$	\$	-
	2. Long Side Service				-
	3. Subtotal (Add column 3 and divide by 2)	3			s
	Equipment	Total Hours	Rate Per Hour	Total Cost	
	1. Short Side Service		\$	<u>s</u>	
	2. Long Side Service				
	 Subtotal (Add column : and divide by 2) 	3			<u>/s</u>
	Miscellaneous				
		<u>Total</u>	Rate Per Hour	Total Cost	
	1. Inspection				-
	2. Site Clean-Up				_
	3. Other (Itemize)				- //
	4. Subtotal (Add column	3)			/s

E.	Overhead Expense		
	1. Installation expen	ise (\$	x ,
	overhead rate (3)	<u>/\$</u>
F.	Administrative Expense	<u> </u>	
	1. Office expense for	r establishing a new ac	count
	and billing record	1.	<u>/s</u> /
G.	Expense Summary		,
	1. Total of items B-F	·	/\$ /

COMMONWEALTH OF KENTUCKY PUBLIC SERVICE COMMISSION

P.O. BOX 615

FRANKFORT, KENTUCKY 40602

Nam	e of	Utility:	Addre	?S :		
The	fol	lowing is an itemization	of expense	es for	providing a me	tered
ser	vice	connection.				
A.	Met	er Size				
	5/8	-Inch / 3/4-Inch /	1-Inch	1	1/2-Inch/	2-Inch
Oth	er (specify)				
В.	!lat	erials Expense				
			Quanity	Unit Cost		
	1.	Water Meter		<u>s</u>	<u>\$</u>	
	2.	Meter Yoke				
	3.	Corporation Stop				
	4.	Meter Box and Top				
	5.	Miscellaneous Fittings				•
		(Itemize)				
	6.	Subtotal (Add column 3)				<u>/</u> \$

_	Sarv	ice Pipe Expense				
· ·		of Service Pipe:		Size of S	ervice Pip	e
	.,,,		Quanity	Unit Cost	Total Cost	
	1.	Short Side Service	L	F. S. L.	F	
	2.	Long Side Service	L	FI	F	
	3.	Subtotal (Add column 3 and divide by 2)				<u>/s</u>
D.	Inst	allation Expense				
	Labo	<u>or</u>				
			Total Hours	Rate Per Hour	Total Cost	
	1.	Short Side Service		<u>s</u>	\$	-
	2.	Long Side Service				•
	3.	Subtotal (Add column 3 and divide by 2)				<u>/s</u>
	Equi	pment	Total Hours	Rate Per Hour	Total Cost	
	1.	Short Side Service		<u>s</u>	s	
	2.	Long Side Service				
	3.	Subtotal (Add column 3 and divide by 2)				/s
	Misc	cellaneous				
			Total	Rate Per Hour	Total Cost	
	1.	Inspection				-
	2.	Site Clean-Up				
	3.	Other (Itemize)		 		
	4	Subtotal (Add column 3)				/s

E.	Ove	rhead Expense	
	1.	Installation expense (\$) x	,
		overhead rate (5)	<u>/s</u> /
F.	Adm	inistrative Expense	
	1.	Office expense for establishing a new account	,
		and billing record.	/\$
G.	Exp	ense Summary	,
	1.	Total of items B-F	/s /

•